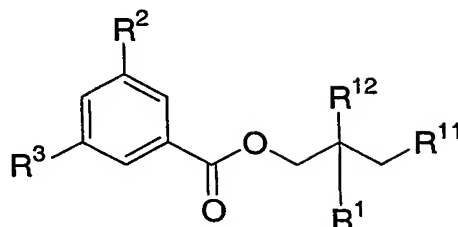


WHAT IS CLAIMED IS:

1. A compound of the formula I:



I

wherein:

R¹ is selected from the group consisting of:

- (1) -C₁₋₆alkyl,
- (2) -C₂₋₆ alkenyl,
- (3) -C₂₋₆ alkynyl,

wherein said alkyl, alkenyl and alkynyl is unsubstituted or substituted with phenyl, which is unsubstituted or substituted with a group selected from:

- (i) halo,
- (ii) -C₁₋₆alkyl,
- (iii) -C₂₋₆ alkenyl,
- (iv) -C₂₋₆ alkynyl,
- (v) -OH, and
- (vi) -O-C₁₋₆alkyl,

- (4) hydrogen;

R² is selected from the group consisting of:

- (1) R⁴-S(O)₂N(R⁷)-,

wherein R⁴ is independently selected from the group consisting of:

- (a) -C₁₋₆alkyl,
- (b) -C₂₋₆ alkenyl,
- (c) -C₂₋₆ alkynyl,

wherein said alkyl, alkenyl and alkynyl is unsubstituted or substituted with 1-6 fluoro,

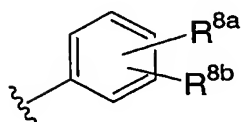
- (d) phenyl, and

(e) benzyl,

wherein R⁷ is independently selected from the group consisting of:

- (a) hydrogen,
- (b) -C₁₋₆alkyl,
- (c) -C₂₋₆ alkenyl,
- (d) -C₂₋₆ alkynyl,

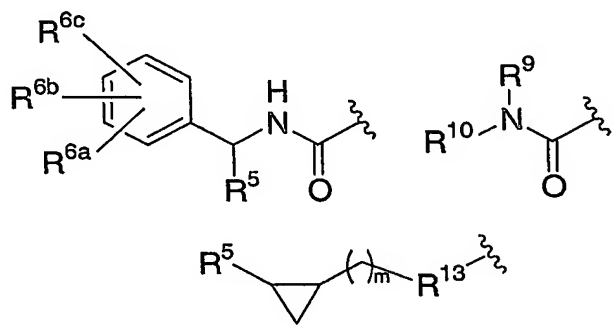
(2)



wherein R^{8a} and R^{8b} are independently selected from the group consisting of:

- (a) hydrogen,
- (b) -CN,
- (c) halo,
- (d) -C₁₋₆alkyl,
- (e) -C₂₋₆ alkenyl, and
- (f) -C₂₋₆ alkynyl

R³ is selected from the group consisting of:



R^{6a}, R^{6b}, and R^{6c} are independently selected from the group consisting of:

- (1) hydrogen, and
- (2) halogen;

R⁵ is selected from the group consisting of:

- (1) -C₁₋₆alkyl,
- (2) -C₂₋₆ alkenyl,

- (3) -C₂₋₆ alkynyl,
wherein said alkyl, alkenyl and alkynyl is unsubstituted or substituted with
phenyl, and
(4) hydrogen;

5

R¹³ is selected from the group consisting of -CH=CH- and -O-;

R⁹ and R¹⁰ are independently selected from the group consisting of:

- 10 (1) hydrogen,
(2) C₁₋₆alkyl,
(3) C₂₋₆ alkenyl,
(4) C₂₋₆ alkynyl, wherein said alkyl, alkenyl and alkynyl is unsubstituted or substituted with
phenyl,

- 15 or R⁹ and R¹⁰ may be joined together to form a pyrrolidine or piperidine ring which is unsubstituted or
substituted with -C₁₋₆alkyl, -C₂₋₆ alkenyl, -C₂₋₆ alkynyl, -C₁₋₆alkyl-O-C₁₋₆alkyl, phenyl or pyridyl;

R¹¹ is selected from the group consisting of:

- 20 (1) -OH,
(2) -O-C₁₋₆alkyl,
(3) -O-C₁₋₆alkyl-phenyl,
(4) -O-phenyl, and
(5) phenyl;

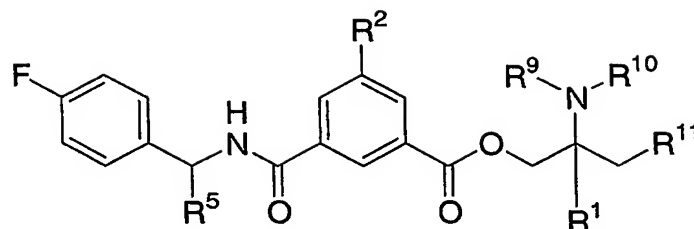
25 R¹² is selected from the group consisting of:

- (1) -NR⁹R¹⁰, and
(2) -OH;

m is independently 0, 1, or 2;

30 and pharmaceutically acceptable salts thereof.

2. The compound of Claim 1 of the formula II:



II

wherein:

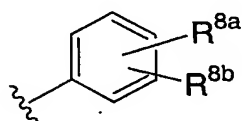
R¹ is selected from the group consisting of:

- 5 (1) C₁-6alkyl, unsubstituted or substituted with phenyl, and
 (2) hydrogen;

R² is selected from the group consisting of:

- 10 (1) R⁴-S(O)₂N(R⁷)-,
 wherein R⁴ is independently selected from the group consisting of:
 (a) C₁-6alkyl, which is unsubstituted or substituted with 1-6 fluoro,
 (b) phenyl, and
 (c) benzyl,
 wherein R⁷ is independently selected from the group consisting of:
 15 (a) hydrogen, and
 (b) -C₁-6alkyl,

(2)



wherein R^{8a} and R^{8b} are independently selected from the group consisting of:

- 20 (a) hydrogen,
 (b) -CN,
 (c) halo, and
 (d) -C₁-6alkyl,

25 R⁵ is selected from the group consisting of:

- (1) C₁-6alkyl, unsubstituted or substituted with phenyl, and
 (2) hydrogen;

R⁹ and R¹⁰ are independently selected from the group consisting of:

- (1) hydrogen, and
- (2) C₁₋₆alkyl, unsubstituted or substituted with phenyl;

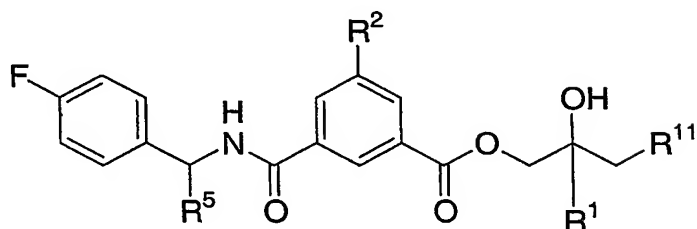
5

R¹¹ is selected from the group consisting of:

- (1) -OH,
- (2) -O-phenyl, and
- (3) phenyl.

10

3. The compound of Claim 1 of the formula III:



III

wherein:

15 R¹ is selected from the group consisting of:

- (1) C₁₋₆alkyl, unsubstituted or substituted with phenyl, and
- (2) hydrogen;

R² is selected from the group consisting of:

20 (1) R⁴-S(O)₂N(R⁷)-,

wherein R⁴ is independently selected from the group consisting of:

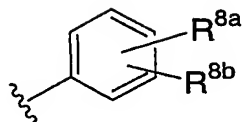
- (a) C₁₋₆alkyl, which is unsubstituted or substituted with 1-6 fluoro,
- (b) phenyl, and
- (c) benzyl,

25

wherein R⁷ is independently selected from the group consisting of:

- (a) hydrogen, and
- (b) -C₁₋₆alkyl,

(2)



wherein R^{8a} and R^{8b} are independently selected from the group consisting of:

- (a) hydrogen,
- (b) -CN,
- (c) halo, and
- (d) -C₁₋₆alkyl,

R⁵ is selected from the group consisting of:

- (1) C₁₋₆alkyl, unsubstituted or substituted with phenyl, and
- (2) hydrogen;

R¹¹ is selected from the group consisting of:

- (1) -OH,
- (2) -O-phenyl, and
- (3) phenyl.

4. The compound of Claim 1 wherein R¹ is selected from the group consisting of:

- (1) benzyl,
- (2) phenyl-ethyl-,
- (3) methyl, and
- (4) hydrogen.

5. The compound of Claim 1 wherein R² is

CH₃-S(O)₂N(CH₃)-.

6. The compound of Claim 1 wherein R² is cyano-phenyl-.

7. The compound of Claim 1 wherein R⁵ is methyl.

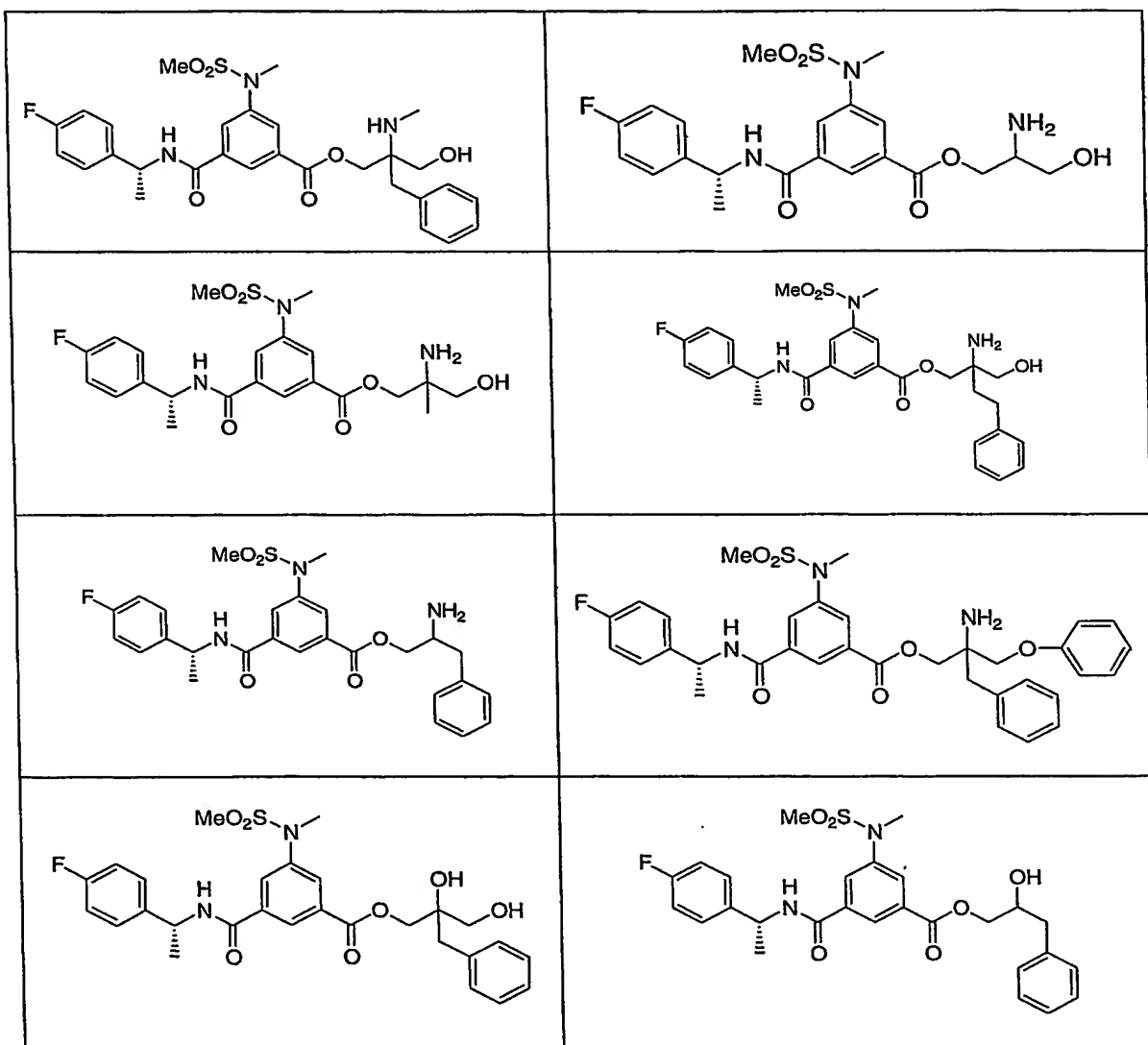
8. The compound of Claim 1 wherein R⁹ and R¹⁰ are independently selected from the group consisting of:

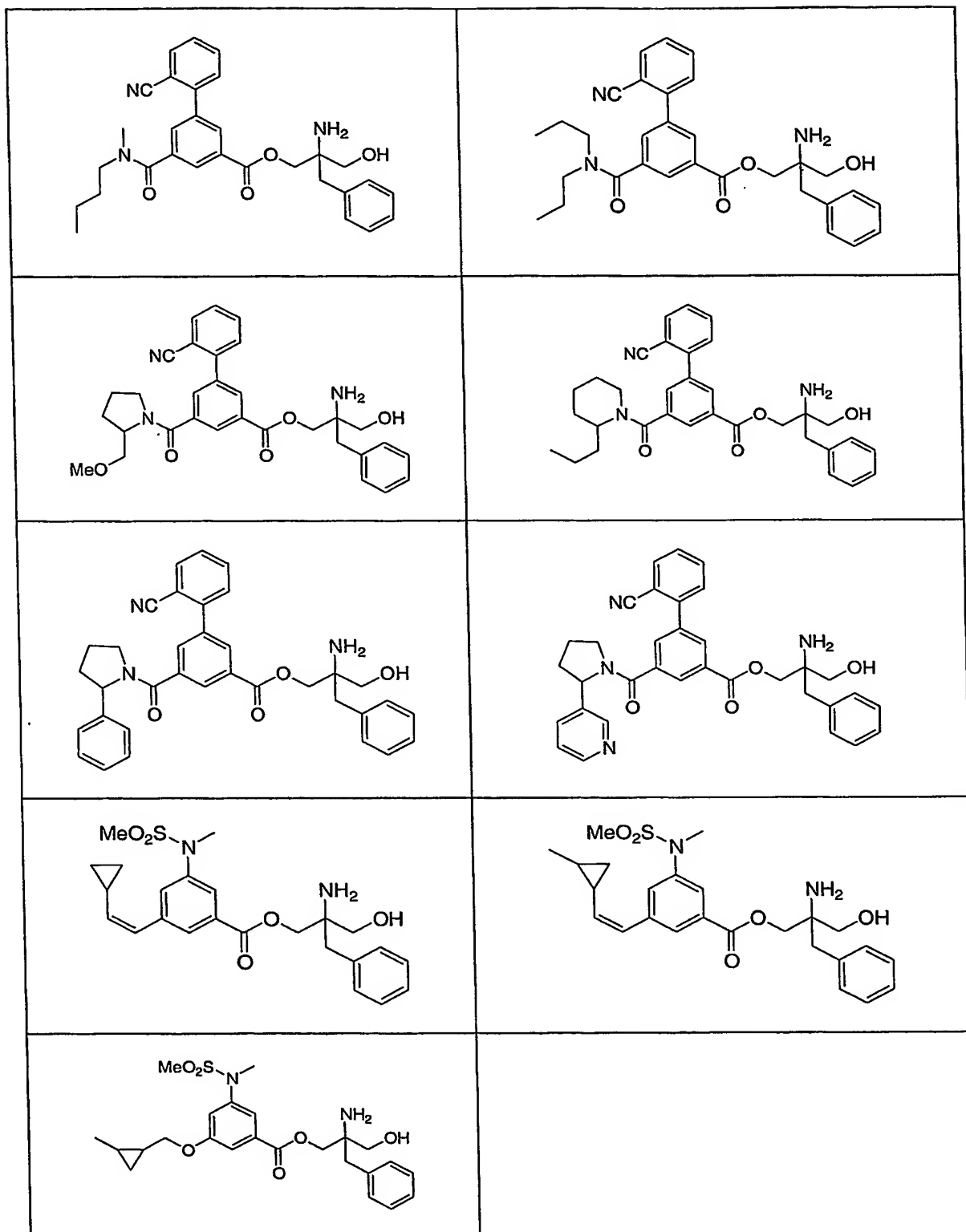
- (1) hydrogen, and

(2) methyl.

9. The compound of Claim 1 wherein R¹¹ is -OH.

5 10. A compound which is selected from the group consisting of:





and pharmaceutically acceptable salts thereof.

11. A pharmaceutical composition comprising an effective amount of a compound of
5 Claim 1 or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

12. A method for inhibition of β -secretase activity in a mammal in need thereof
which comprises administering to the mammal a therapeutically effective amount of a compound of
Claim 1, or a pharmaceutically acceptable salt thereof.

10

13. A method for treating Alzheimer's disease in a patient in need thereof
comprising administering to the patient an effective amount of a compound of Claim 1, or a
pharmaceutically acceptable salt thereof.

14. A method for preventing, controlling, ameliorating or reducing the risk of
15 Alzheimers disease in a patient in need thereof comprising administering to the patient an effective
amount of a compound of Claim 1, or a pharmaceutically acceptable salt thereof.